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AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

"Circulated Everywhere Dyestuffs are Used"

Vol. 4 New York, January 27, 1919 No. 4

THE BRITISH LICENSING SCHEME

A Resume of the Various Factors in the Organization and Administration of England's Plan to Protect Her Dye Industry

JUST as was predicted, discussed, thought over and dreamed over for so many weary months, the war has ended, and with it the artificial protection afforded the debutante American dye industry. And in full accordance with the burden of reams of printed matter and hours of eloquence, the question of how best to shield the industry from foreign invasion, now that the false bulwark has been withdrawn, is uppermost in the minds of all those connected in any way with the industry.

At the present time there are two means of protection offered. One consists of the adoption of an extremely high tariff. The other involves the appointment of a licensing board along the lines suggested at the Washington meeting nearly two months ago. For the benefit of readers of this publication, and for their guidance toward a better comprehension of the limitations of tariff protection, we have already printed in these pages the full text of the amendments to the present tariff law proposed by the Tariff Commission, and later a condensed version of the Tariff Commission's reasons for many of these changes. We now propose to offer them a concrete idea of what the appointment of a licensing board would mean, and since the British have already worked out an excellent scheme for the protection of their dye industry by this means, we cannot do better than to describe the organization and administration of the scheme.

As outlined in a memorandum furnished by Mr. M. R. Poucher, of the Du Pont Chemical Works, the entire organization falls primarily under the official eye of the British Board of Trade, and is responsible to that body for its actions. The Board of Trade constitutes a court of final appeal on such questions of policy as the organization may be unable to agree upon, and it likewise has much to say concerning the appointment of various members of the organization.

Immediately beneath this body in authority is an individual known as the Dyes Commissioner. He is directly responsible to the Board of Trade for the administration of the scheme and the formulating of recommendations for

the award of loans and grants. He is advised and assisted by two committees and two other officials, consisting of a Loans and Grants Allocation Committee, a Trade and Licensing Committee, an Inspector of Research and an Inspector of Accounts.

Of the two committees, the Trades and Licensing Committee is the more important. This consists of nine members, four of which represent color users and four of which represent color manufacturers. The ninth member, the chairman, is selected from the Board of Trade, and thereby holds the deciding vote and the balance of power. The Dyes Commissioner himself acts as a tenth member, but merely in an *ex officio* capacity. He has no vote. Of the four representatives of color users, one is appointed by the National Federations of Paint, Color and Varnish Manufacturers, and the other three are appointed by the Color Users Committee. They may be members of the respective trades concerned as color users, but must not be dye manufacturers or connected with any dye manufacturing business. The mere holding of shares in a dye manufacturing business is not, however, considered a disqualification for membership. Of the four representatives of the color manufacturers, one is appointed directly by the Board of Trade, one is appointed by the Dyes and Intermediates Section of the Association of British Chemical Manufacturers, and the remaining two are jointly selected by those two famous color firms, British Dyes, Ltd., and Levinstein, Ltd. Failing a nomination by any of these organizations, members of this committee may be appointed by the President of the Board of Trade. The manufacturers who are eligible are those whose business is mainly the production of finished dyestuffs and the advanced intermediates directly required for their production. The production of the primary intermediates, or crudes, such as benzol, toluol, phenol, anthracene and similar products, does not make the producer eligible for membership.

The functions of the Trades and Licensing Committee are twofold. The first of these is to determine what colors and intermediates shall be licensed to be imported into the country, and in what quantities.

This brings into existence another committee, to be known as the Licensing Sub-Committee. This is responsible to the Trades and Licensing Committee proper, which is responsible to the Dyes Commissioner, who in turn is responsible to the Board of Trade. (Forgive us for rehearsing this, but it brings out more clearly the relation of the integral parts of the scheme to each other-. The Licensing Sub-Committee consists of four members, two of whom are taken from the four color users of the Trades and Licensing Committee, and two from the four color manufacturers of the same body. The authority of chairman of this sub-committee is vested in the Trades and Licensing Committee, subject to the final authority of the President of the Board of Trade.

The other function of the Trades and Licensing Committee consists in determining and advising the Dyes Commissioner as to what colors and intermediates the domestic manufacturers should be encouraged to produce, in the order of their importance.

We shall now leave the Trades and Licensing Committee temporarily and turn our attention to the Loans and Grants Allocation Committee. This consists of seven members, six of which are appointed by the Board of Trade, and having as chairman the Dyes Commissioner. The functions of this committee are, as may be guessed from its title, to consider the allocation of

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loans and grants and to make recommendations thereon.

The duties of the Inspector of Research are to examine and to report to the Dyes Commissioner on all schemes of technical research in connection with the manufacturing works which come under the scheme.

The duties of the Inspector of Accounts are to examine the accounts and financial position of all applicants for loans or grants, the estimates of expenditures on new works, statistics of output, the accounts of expenditures made out in loans and grants, and any other relevant matter of accounts. He is required to report his findings to the Dyes Commissioner, and may have for an assistant an Inspector of Plant and Buildings.

This covers the position and functions of the principal officials and committees concerned in the administration of the scheme. To return to our discussion of the general scope of the scheme and of the Trades and Licensing Committee, the British Board of Trade is prepared to furnish to manufacturers a list of approximate quantities of the colors imported into the country in the year 1913, and a separate list of such colors as are not at present being made in the country, or not being made in sufficient quantities to supply the demand, and which, on the advice of the Trades and Licensing Committee, they consider are essential to meet the requirements of consumers.

The manufacturers, in turn, are invited to submit to the Dyes Commissioner proposals for the production of such groups of these colors as they consider they can successfully manufacture. The proposals must give clearly the following facts:

1. The particular group or groups of colors and the approximate annual quantity of each which applicants will undertake to manufacture.

2. The time in which it is estimated that the proposed outputs can be attained. In this connection, however,

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the time which will elapse between an application for priority for materials or for a license for building, giving the full particulars and details, and the receipt of such priority, certificate or license by the manufacturer, will be counted additional. For this purpose, priority shall be estimated on a war-munitions basis and a further three months from the date of the receipt of the certificate, or license, shall be added for obtaining the materials to the time estimated by the manufacturer. Where the manufacturer can show to the satisfaction of the Board of Trade that the materials cannot be obtained within three months on initial priority, the Board will either obtain a higher priority, or the additional time required shall be further added.

3. The estimated expenditures on any extension of equipment plan, or buildings to be devoted wholly or mainly to the production of the specified colors.

4. An account of any expenditures already incurred, either wholly or mainly for the same object.

5. An estimate of the actual depreciation due to special wear and tear in the process of actual manufacture in addition to the depreciation due to the ordinary wear and tear of analogous plant not subject to chemical influences. This estimate of the depreciation is to be expressed in terms of the annual proportion of useful lifetime, and is not to take into account any allowance for obsolescence or increased first cost due to war conditions.

6. The annual balance sheets, profit and loss, and revenue and expenditure statements of the applicants, from and including the year 1914, or from the commencement of the business, whichever is the lesser period.

7. A statement showing (a) the number comprising the technical and scientific staff employed, describing their qualifications and employments, and distinguishing between those employed in manufacturing operations and those employed in technical research, (b) particulars of the works laboratory and scientific equipment attached to the manufacturer's works, and (c) particulars of any provision made for technical research, whether such research is attached to the works or is separate therefrom.

8. A statement of the production of all kinds of dyes and intermediates for the twelve months ending September 30, 1918, where such information has not already been furnished to the Board of Trade on the Monthly Census of Production returns.

Further general details of the administration of the scheme provide that the particulars of the classes of dyes and intermediates for the manufacture

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of which proposals may be received, shall be referred by the Dyes Commissioner to the Trades and Licensing Committee, so that the latter may make recommendations as to the extent to which the manufacture of any product embraced in the proposals shall be undertaken.

The Trades and Licensing Committee will also consider and make recommendations as to the extent to which, if at all, it may be desirable to limit the production of other dyestuffs, particularly those already in sufficient supply, in order that some portion of the resources utilized in their production shall be diverted to the production of those dyestuffs more urgently in demand. The committee will have at its disposal, from returns compiled by the Board of Trade, particulars of the general production of dyestuffs in the country.

The report of the Trades and Licensing Committee shall be submitted to the Loans and Grants Allocation Committee after investigation by the Dyes Commissioner of the particulars put forward by the applicant, and the committee will recommend what amount of loan or grant, if any, on account of buildings and plant, shall be made to any particular applicant having regard to the amount of the funds at the disposal of the Board of Trade for the purpose and to the principles laid down above.

Applications for grants in aid of research will, in the first instance, be referred by the Dyes Commissioner to the Inspector of Research, who will report thereon, and they will then be submitted, with the Inspector's report, to the Loans and Grants Allocation Committee, which will recommend what grant, if any, shall be made.

All recommendations for loans or grants will be subject to the final approval of the Board of Trade.

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MUNITIONS OF WAR TO MUNITIONS OF PEACE

By Stanley F. Withe

History will record as one of the greatest achievements in the chemical industry of the United States during the war the building of three great plants—Hopewell, Nashville and Deepwater. While two of them played a major part in bringing the war to a successful ending, the third, in a less spectacular fashion but in the face of even greater difficulties, laid the foundation for a development which guarantees that in the commercial war which unquestionably will follow, Germany's chief weapon—her dyestuff industry—will be broken.

Nothing illustrates better than the development of these three plants the close relation between the making of explosives and the manufacture of coal tar dyestuff and the dependence of one upon the other. Now that the war is over their story may be told.

It goes without saying that at the beginning of the war the first great need of the Allies was for explosives. The total capacity of all the plants of the Du Pont Company—1,000,000 pounds of smokeless powder a month—though large when judged by previous standards, was insignificant in the light of the requirements of modern warfare.

There was no time for delay. Without explosives quickly and in ever increasing quantities the Allies faced annihilation. Hopewell, Virginia, built by the engineers of the Du Pont Company in record breaking time, filled the gap and is officially credited with having saved the cause of the Allies. The demands upon the company increased until they aggregated 440,000,000 pounds of smokeless powder a year, and every one of these demands were met.

When the United States entered the war the existing facilities were entirely engaged in taking care of the needs of the Allies, and were utterly insufficient for the requirements of our own rapidly growing army and navy. Increased capacity was needed and needed quickly. In March, 1918, the Nashville, Tennessee, plant was started. Five months later it was in operation—the most wonderful achievement ever performed in the history of powder making.

Built by the Du Pont Company at a cost of $80,000,000, without a cent worth of profit, Nashville is to-day the greatest smokeless powder plant in the world. It is seventy times as large as the largest smokeless powder plant in the country before the war, with a capacity of 1,000,000 pounds of smokeless powder a day. Twenty-five thousand men were employed in the construction of this enormous plant, which consumes daily 1,500,000 pounds of nitrate of soda, 675,000 pounds of sulphur, 4,500 tons of coal and 100,000,000 gallons of water.

The third great plant built by the Du Pont Company during the war is the dyestuff works at Deepwater Point, New Jersey. The causes which led to its building are now too well known to be more than touched upon here. When, in 1915, imports of German dyes abruptly stopped, the various dyestuff consuming industries, aggregating $2,500,000,000 in invested capital, faced a crisis which is well remembered by everyone. The situation, with disaster looming ahead, was in reality a blessing in disguise, for it brought home to manufacturers and consumers with striking force the realization that if America was to be other than a vassal of Germany commercially, she must achieve independence in the dyestuffs industry.

The Du Pont Company had never before been in this particular branch of the chemical industry, but it was felt there was a sound foundation upon which to establish the new industry. It had first, the necessary chemical and engineering organization. It is not generally known, but the Du Pont Company, during the war, had in its employ over 1,200 graduate chemists or about ten per cent of the total number in this country. Secondly, the Du Pont

Company has access to the necessary raw materials, derived as by-products of the coking industry, which were utilized in large amounts in the making of military high explosives. Thirdly, it had exceptional plant and laboratory facilities.

On July 1, 1917, preliminary preparations were completed and the construction of the plant at Deepwater was begun. The building of this great plant in the face of almost insuperable obstacles is an achievement of which every American can well be proud. What the difficulties were will never be known. Suffice it to say that as the principal reliance, both of thic country and our Allies, for explosives, the first aim of the Du Pont Company was to make munitions of war. The manufacture of dyestuffs was of necessity relegated to second place. In the supplying of men, equipment and raw materials, Nashville and Hopewell took precedence over Deepwater.

Nevertheless the dyestuffs development of the company went on slowly but surely. Within ten months there was erected an indigo plant at Deepwater capable of supplying the entire needs of the United Staes and Canada, and it was producing synthetic indigo equal in quality to the best formerly imported. Other colors have been produced so far as has been possible with the crudes and intermediates available.

With the ending of the war the situation, so far as the Du Pont Company is concerned, is rapidly changed. The entire resources of the company—men, capital and manufacturing facilities—can now be devoted to the manufacture of munitions of peace. The release of labor from munition plants, hitherto unavailable supplies of crudes and intermediates, the possibility of securing men trained in the closely allied explosives industry and of making needed extensions in plant facilities mean, from now on, rapid development in the Du Pont dyestuffs industry.

The following statement by Mr. P. S. Du Pont, president of the Du Pont Company, as to the part this company will play in the reconstruction of America's industries is fraught with significance.

"The Du Pont Company is glad beyond measure of the opportunity to turn from the manufacture of munitions of war to the manufacture of munitions of peace.

"Now that victory has most happily crowned our arms, let us as patriotic Americans, victors in the gigantic world struggle for civilization, face the reconstruction period in the same spirit as that with which we faced the war. This country met the shock of war without panic, or any serious disruption to our economic life. We must meet the shock of peace in the same spirit, with full confidence in our ability to work our way back to normal in a quiet, orderly, business-like way.

"Labor and capital alike have opportunities awaiting them. The suspended activities of the nation must

(*Continued on page* 12.)

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ACID
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A TOOTH FOR THE INFANT INDUSTRY

The American dye industry, being an infant industry, has in the past come in for much of the coddling and petting which falls to the lot of all infants. Its proud forebears and parents have watched with bated breath its infantile efforts to get upon its feet, followed by its first, uncertain steps, and have gleefully recounted to each other and chortled over its precocious achievements, while a smilingly indulgent avuncular Government has, from time to time, assisted its struggles to "grow up."

Now all its well-wishers are eagerly expecting it to cut its first tooth. The customary teething ring has been provided in the personnel of the German Dye Ring; the necessity for teeth—a whole set of extra sharp ones, in fact—is plainly apparent, and the age of the youthful prodigy is auspicious. Teeth are weapons of defense as well as tools for mastication, and a razor-edged, sharp-pointed tooth in the shape of a licensing board ought to be produced without delay.

Elsewhere in these pages will be found a detailed description of the means by which such a thing was established in Great Britain, whose dye protection problems are similar to our own, together with data relative to the functions of the British Trades and Licensing Committee and its allied organizations. The merits of the scheme need little in the way of clarification to recommend them; they are as plain as a maiden aunt and require no demonstration to prove the ease with which they could be adapted to meet our own necessities.

The attitude of this publication on the choice between dependence upon an extremely high tariff and the creation of a licensing board to protect the industry is well known. A thorough analysis of the British scheme should convince all elements of the industry, we believe, that there is no comparison. To sum up the situation in a few words, a licensing board would protect the manufacturer of dyes by excluding from this country the colors which he is already making, and it would protect the consumer by permitting the entrance of such dyes as the manufacturers are not at present turning out, thereby assuring a range of colors for selection entirely adequate to the consumer's needs.

The flexibility of such a board, as compared to a protective tariff, is as that of a rapier to a baseball bat. The man armed with the former can strike effectively in three places while his antagonist with the bat is preparing to strike in one. In the case, for instance, of a color not made here, the consumer will have no difficulty in obtaining a supply, for the board can admit it, duty-free if necessary, in order to assure a sufficiency. As soon, however, as someone within our borders begins to turn that color out, in limited quantities, let us say, the board can shut off, almost overnight, sufficient of the imported article to maintain the total supply available in this country at its former level, and at the same time provide a market for the domestic manufacturer's output. If this increases, or the demand increases, the matter can again be adjusted at once. With the protection provided by a tariff wall alone, months of delay are sometimes necessary in order to effect a change, and this is coupled with much opposition and conservatism to be overcome.

It is sincerely to be hoped that the expected tooth of the infant American dye industry will take the form of a licensing board with administrative

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powers and full authority to license or prohibit the admission of all imports which in any way affect the industry.

MUNITIONS OF WAR TO MUNITIONS OF PEACE

(*Continued from page 9.*)

be resumed and this resumption can be brought about without hardship to any one if we undertake it in the true American spirit.

"The leaders of American industry have demonstrated to their world their ability to carry the stupendous burdens of war and at the same time to keep the machinery of civil life in working order.

"Labor has shown its adaptability to the meeting of emergency and it has only to show the same spirit now in readjusting itself to the new conditions which we are facing.

"America is in a better financial condition than ever before in her history. Opportunities for business expansion are great, and this means that labor which has been employed in war industries will find new outlets for itself as fast as these industries suspend operations.

"Many details of the nation's business organizations have been planned already. It remains only for a harmonious effort to put them into effect.

"It has been the privilege of E. I. du Pont de Nemours & Company to take a substantial part in the winning of the war. It has built up an organization and a great army of loyal workers, who, in splendidly meeting the crisis, have followed out the best American traditions.

"Of course, as the demand for munitions lessens, this army must be fed back into the ranks of ordinary industry. The Du Pont Company has been looking forward to the time when the war should end and it expects to take as prominent a part in the new development fields as it has taken in the emergency work of the last four years."

SOFTENING AGENTS

By F. E. Burnham

A preliminary examination shows that, in general, commercial cotton softeners are composed of water, soap and oil, or, as it may be considered, an emulsion of oil in a concentrated solution of soap. Other substances may be present, but, with the exception of glycerine, are of no value, sodium silicate, rosin, starch and clay, for instance.

Both soda and potash soaps are used according to the properties desired in the softeners. For a cheap softener the lower cost of the soda soap recommends itself, and when used with an oil of low melting point fairly good results are obtained, especially if there

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Phosgene
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Salicylic Acid Tech.
Phenylalphanapthylamine
Ortho Nitro Phenol
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Sulphuric Acid
Nitric Acid
Muriatic Acid
Nitre Cake
Salt Cake
Lithopone

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is much glycerine present to furnish the rather essential property of hygroscopicity. The hardness of the soda soaps also gives a certain body to the fibre. In general, however, it is claimed that soda soap softeners are not so efficient as the potash soap softeners, because the soda soap has a tendency to dry out, and thus make harsh the feel of the fibres rather than to produce the contrary and desired effect. A certain advantage which soda soaps possess, however, should not be overlooked—namely, that because of their solidity they form a protective covering over the oil in the fibre, and thus prevent its turning rancid.

Because potash soaps are soft and deliquescent, they are generally to be preferred as softeners, their superior efficiency offsetting the lowest cost of the soda; but by reason of the tendency of many oils to go rancid and develop disagreeable odors, the range of oils which it is possible to use with a potash soap is more limited than is the case with soda soaps.

The choice of the alkali in the soaps used, however, is dependent, to a large degree, on the oil used, whether present as combined fatty acid or as free oil. Mineral and fish oils are necessarily excluded; the former because they are unsaponifiable, the latter from the bad odors developed on drying them, and because of their gumminess.

The field of animal and vegetable oils is a wide one, with cost of much importance. Olive, cottonseed, maize, sunflower, peanut, palm and cocoanut oils are all usable vegetable oils. Tallow, both beef and mutton, lard, tallow oil, red oil and lard oil are all suitable animal products.

The selection of a suitable oil is dependent on the cost, the melting point, the freedom from tendency to turn rancid and the absence of unsaponifiable matter and hydroxy acids. All desirable properties cannot be expected in one oil, and the purpose for which the softeners are used will determine the choice.

While in general the use of a softener is simply to produce a good touch, yet different kinds of yarn will require slightly different treatment, and the softener be modified accordingly.

Low quality yarns require the item of cost to be especially considered, and so the soda softener will be employed. For loosely twisted yarns and short staple yarns, the body-giving property of the soda soap softener recommends it. All fine yarns and those from unusually harsh dyeing processes will require the potash softener.

The proportions of the different constituents of a softener, i. e., the water, soap and oil, may be defined as follows: Sufficient water to dissolve the soap, and as much oil as this concentrated soap solution will thoroughly emulsify. No general rule governing the proportion of water, soap and oil is followed, hence an investigation of the application and effect of softeners of varying proportions on warps become necessary.

To investigate the use and results of the various softeners in the market,

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softeners were made up in the laboratory of the New England section of the Society of Chemical Industry in accordance with the rule stated above, that the water should be sufficient to dissolve the soap, and no more oil should be present than could be held thoroughly emulsified, and the results from using such softeners were compared with those obtained by the use of commercial softeners. It was soon evident that there was too much oil in the majority of the commercial softeners, as it separated in the softening bath, and frequently caused oil stains and streaked warps.

As indicated by their composition, there are two methods of preparing cotton softeners:

1. By adding a warm solution of caustic alkali to an excess of oil above that required to make a neutral soap, and then thoroughly boiling and agitating.

2. By making a soap, dissolving it in hot water, and adding the proper amount of oil, and then boiling and stirring the mixture.

With the first method it is evident that the combined fatty acid and free oil must be the same. By the second method it is possible to have one variety of soap, i. e., a palm oil soap and a different oil, i. e., olive oil; such combinations are frequently desirable both from an economical and from a practical point of view. A further advantage of the second method is that the free oil in the softener is not boiled for the long period required by the first method.

When a sodo soap is used because of its hardness, the free oil must be of low melting point, and unquestionably a good grade of olive oil is the most desirable for such purpose. With a potash soap, because it is soft, a harder fat or tallow may be used for the free oil. The use of these fats is also preferable as they have less tendency to turn rancid.

The proportions determined by experiment as best suited for cotton softeners were those in which the soap, calculated on a dry basis, is three parts to one part of free oil, or, including the water, seven parts of water, three parts of soap and one part of oil.

An analysis of a soda softener made approximately on this formula gives: Water, 64.2 per cent; dry soap, 26.8 per cent; oil, 9 per cent. A potash softener, which gave excellent results, gave on analysis: Water, 68.4 per cent; soap, 23.7 per cent; oil, 7.9 per cent.

As stated before, with a soda softener, olive oil is preferable for the free oil, but as a source for the combined fatty acids in the soap, there is a wider range for choice; at present, maize oil is a very cheap and valuable soap oil, and may even be used as a free oil with fairly good results. Bleached palm oil, however, is the usually fatty base of the soap in soda softeners, the body it gives being the reason for its selection, as thereby more water can be used in the softener.

From a user's standpoint, it is not

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DYE PRODUCTS & CHEMICAL CO., Inc.
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superior to maize oil or tallow, and is somewhat more expensive. Cottonseed oil is, on the whole, less desirable in its soap-making properties than maize oil, and at the present time is higher in price. For a potash softener, the maize oil is suitable, and is as cheap as the fatty base for the soap, if a fairly hard tallow is used for the free oil.

Red oil is also very suitable as a base with either potash or soda, but because of its odor it should not be used for the free oil. Lard oil, while suitable for soap base, is higher in price, and offers no advantages over red oil. Beef and in a less degree mutton tallow are good and cheap soap bases, and beef tallow is the material par excellence for the free oil of a potash softener.

One cotton softener, which is somewhat largely used, is sulpho-ricinoleic acid or turkey-red oil. This is, undoubtedly, a good softener, and has, in a marked degree, the general property of all good cotton softeners of brightening colors. It is, however, more expensive than the cotton softeners described, and has no compensating advantages.

It may be summarized in conclusion that a good cotton softener is composed of approximately seven parts of water, three parts of soap, and one part of oil, and that, where a soda soap is used, it should be olive or maize oil, and when a potash soap is used, it should be tallow or lard.—*Posselt's Textile Journal.*

The Thymos Chemical Company, with Eugene Thymer at its head, has filed notice of authorization to operate a plant at 50 Spring Street, Newark, N. J., for the production of chemicals and allied specialties.

FRED WETZEL & CO. N.Y.

SULPHUR BLUE

Chester A. Jayne, vice-president and general manager of Ralph L. Fuller & Co., Inc., 2 Rector Street, New York, with offices in New York, Cleveland, Philadelphia, London and Genoa, has been elected president of the Union Dye & Chemical Corporation, of Kingsport, Tenn., for whom the Fuller company are the sole selling agents. In addition to the other products of the Union Dye & Chemical Corporation, it is now specializing in sulphur blue four (Conc.), one of the best sulphur blues that has yet been put upon the market. That color is of special interest to the textile trade, and the concern is now ready to make rate deliveries on contract as well as having the color available for spot delivery. The sale of this product is through the sole selling agents, and the corporation Ralph L. Fuller & Co., Inc., main office 2 Rector Street, New York City.

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INQUIRY DEPARTMENT

All classes of chemical work or advice relating to artificial colors, natural dyestuffs, dyewoods, raw materials, extracts, intermediates, crudes, or dyeing chemicals and accessories in general, will be carried out for readers and subscribers of the AMERICAN DYESTUFF REPORTER by this department.

Inquiries of a minor character will be answered on this page, while major matters involving personal investigation, analyses, perfected processes and working formulas, will, if desired, be treated confidentially through the mails. All questions, materials for analysis or letters leading to the opening of negotiations for special work will receive prompt attention if addressed to Inquiry Department, American Dyestuff Reporter, 470 Fourth Avenue, New York City.

L. S.—Question—We are passing chlorine into boiling toluene in the presence of light, and would like to know just what chemical reactions are taking place.

Answer—Various chlorine products are formed, the principal products being those in which the chlorine is substituted in the side chain.

D. T. A.—Question—Kindly forward me complete working formula for the preparation of 2-Amino-Anthraquinone.

Answer—By this time you will have received the working formula in full detail, and I would suggest that you proceed at once with the installation of the autoclave and other apparatus, so I may be in position to carry out the test.

C. A. G.—Question—What issue of your paper contained an article on "The Thunders of Silence"?

Answer—This editorial was printed in our October 28 issue. A copy is being forwarded you by mail.

E. A. S.—Question—We are sending you a photographic color screen, and would like to know the dyes used. Kindly forward the results through the mail, as it involves a patent matter.

Answer—We have received the screen in question and will send results of our analysis by mail, as requested.

"THEM'S HARSH WORDS!"

Under the heading "Small Interests Squeezed," the New York *Sun* recently printed a special despatch from Washington to the effect that the smaller dye manufacturing concerns of this country are going to experience exceedingly "hard sledding" now that the war is over. The despatch follows:

"Washington, Jan. 6.—Of the eighty-one dyestuff manufacturers now doing business it is believed that competition, which is constantly increasing, will cause all but a few to discontinue. It is not believed that more than six will be able to keep going.

"The reasons are that the smaller manufacturers are turning out only a limited line of dyes while the overhead expenses are comparatively greater than those of larger concerns. There

A limited number of samples received for analysis, and working formulae furnished for their reproduction.

Confidental advice to chemists, superintendents and assistants, on matters pertaining to the industry.

Dr. Charles B. Davis
Care of American Dyestuff Reporter
470 Fourth Ave., N. Y. City

is said to be a probability, however, of several of the smaller establishments combining to form a common selling agency and thereby reducing their expenses."

The reasons given for the difficulties are sound, and the proposed remedy will likely be adopted in a number of cases, but all the same we believe with the ill-fated lover of "Molly Brannigan," that such a state of affairs is "crool 'ard" on the little fellows, and that the correspondent may possibly have been led to overestimate the gravity of the situation a bit. What do our readers think? We should be glad to receive opinions as to the merits of this view. Personally, we think the point not at all well taken.

ENGLISH LIKE NEW COLOR CARD

That the British are well disposed toward the American dye trade is well shown in a recent article anent the new standard color-card issued by the Textile Color-card Association, by David Patterson, F.C.S. The writer said:

"The excellent color-pattern card issued by the Textile Color-card Association of New York is a courageous and praiseworthy product of the confusion and turmoil of war. The Association consists of a large and representative combine of over 200 of the best known textile and color firms in America, and has been promoted for the sole object of uniting all their influence and experience to form a universal standard color card embracing the most popular shades in use throughout the trade. This has been a long desired project on both sides of the Atlantic, and it says much for the initiative and business go of our American cousins that they have so courageously tackled this big problem at the present time. To standardize the multifarious shades in the dyeing trade is a big task, requiring not only the technical skill, but patience and knowledge in selection, tact in consultation with others and at the same time harmony of organization which are sometimes difficult to combine and bring to successful accomplishment.

"In standardizing and naming colors it is very essential to have as many experts and representative opinions as possible to form a basis on which to work. The color-committee has been careful to do this, and selected at first some 108 color names of the best known shades used in commerce, and asked twenty-five well-known firms to furnish a swatch or cutting of what they considered the best typical example of each of those 108 shades named. Twenty-three firms complied with the request and sent in their ideal shades as representative of the trade names given. After all these had been received, that is twenty-three shades of say a typical 'Old Rose,' and twenty-three shades of 'Nile Green' or 'Ecru,' 'Cream,' 'White,' &c., these 108 groups of twenty-three

FRED WETZEL & CO. N.Y.

R. Lechner Co., *Inc.*
Specialists in Dyestuffs,
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200 Fifth Avenue New York

We urge that the Textile Industry support the stand of the American Dyestuff Reporter for an American Dyestuff Industry.

SIZINGS—FINISHINGS—SOFTENERS
SEYDEL MFG. CO.
Jersey City, N. J.

shades each were then placed before a further select committee, whose duty it was to choose from each group the ideal or best representative shade for the name given. After this was accomplished, the next step was to engage two skilled dyeing firms to match to perfection on skeins of silk ribbon the recognized standard shade as finally selected. Then from these dyeings were prepared the beautiful shades, so tastefully mounted, in the color standard now before us."

NOTES OF THE TRADE

With a capital stock of $1,050,000, the G. Siegle Corporation of America has been incorporated under the laws of New York. The newly organized corporation will engage in the manufacture of colors, dyes and chemicals. Headquarters of the concern will be located in New York City.

To manufacture and deal in dyestuffs, chemicals, etc., the Newport Dyestuffs Corporation has been incorporated under the laws of Maine with a capital of $25,000. The head office will be in Portland, that State.

The John P. Marston Company has been incorporated under the laws of Massachusetts to manufacture, import and export dyes, chemicals and dyestuffs. The capital of the company is $20,000, and headquarters will be located in Boston.

Announcement has been made by the Republic Laboratories, Inc., of New York City, that the capital of this organization has been increased from $112,500 to 1,000 shares of preferred stock, with a par value of $100 each, and 2,500 shares of common stock.

To provide for increased capacity, the Aetna Explosives Company, Inc., will build a new addition to its plant at Fayville, Ill. Plans for the structure are being prepared, but the estimated cost of the addition has not as yet been made public.

A new organization, to be known as the Maywood Chemical Company, to be located at Maywood, N. J., is the result of the recent merger of the Standard Essence Company, the Thorium Chemical Company and the Schaefer Alkaloid Company, all of that State, and each capitalized at $100,000. The merger was recently consummated upon securing the approval of the Public Utilities Commission, Trenton.

The United States Tariff Commission has sent out the following notation on its "Census of Dyes and Coal-Tar Chemicals, 1917":

"Through a misunderstanding, establishment No. 79 reported that it manufactured dyes. Eliminate No. 79 for all products except color lakes, page 34."

An agency is desired by a man in Italy for the sale of colors and dyes of various kinds. Catalogues are requested and correspondence should be in French or Italian. References can be provided. Those interested may obtain further details by writing to any of the district or co-operative offices of the U. S. Department of Commerce and referring to file No. 27956.

FRED WETZEL & CO. N.Y.

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